

REMARKS/ARGUMENTS

A Request for Continuing Examination (RCE) application has been filed in conjunction with this Response to the Final Official Action mailed on September 26, 2008.

The Director is hereby authorized to charge large-entity fees for the RCE fee required under 37 CFR 1.17(e), namely \$810.00, and the Petition fee for a three (3) month extension of time to file the Response, less the 1 month extension of time previously paid (\$120), namely \$930.00, as well as any other fees deemed necessary in connection with the RCE, Petition, or Response and Amendment to Deposit Account No. 04-1679.

As a result of this Amendment, claims 1-15, 20-21, 23-24, and 26 are under active consideration in the subject patent application, claims 16-19 stand withdrawn until a generic claim is allowed, claims 22 and 25 are canceled, and new independent claim 26 has been added to the application.

In the Final Official Action the Examiner has:

- (1) acknowledged Applicant's withdrawal of Claims 16-19 as being drawn to a nonelected species;
- (2) rejected claim 24 as having insufficient antecedent basis for the limitation "the fluid" and;
- (3) rejected claims 1, 3, 6-16, 23, and 24 under 35 U.S.C. §102(b) as allegedly anticipated by U.S. Patent No 2,020,563, issued to Moore (the "Moore reference");

(4) rejected claims 2, 4, and 5 under 35 U.S.C. §103(a) in view of a proposed combination of the Moore reference with U.S. Patent No. 5,573,029, issued to Freimann (the "Freimann reference"); and

(5) rejected claims 20 and 21 under 35 U.S.C. §103(a) in view of the Moore reference.

With regard to Items 1 and 2, claims 16-19 remain withdrawn until a generic claim has been found allowable. Applicant has amended claim 24 so as to attend to the antecedent basis issue identified by the Examiner. New claim 26 has been added so as to define further novel aspects of the invention, particularly with regard to the shape of the vortex chamber and the location of a low pressure region in the fluid that results from this structure. No new matter has been added as a result of the addition of new claim 26.

With regard to Items 3-5, Applicant notes the Examiner's continued reliance upon the Moore reference. The Examiner has taken the position that ". . . a *chamber is simply an enclosed space . . .*" such that the spiral passage 29 of Moore is a chamber, and, presumably by virtue of the spiral flow path, can be considered to be ". . . a vortex chamber" The Examiner is incorrect. Applicant has amended claim 1 and introduced new claim 26 in an effort to distinguish the structure of the present invention from the structure presented in the Moore reference.

Firstly, Applicant submits that a person of ordinary skill would know that a vortex is a spinning flow of fluid around a center defined by the fluid itself, and often referred to in the art as a vortex line. At this center portion of the fluid, the fluid pressure is lowest

and the fluid speed is greatest. The fluid pressure in a vortex rises progressively with distance from that low pressure center, in accordance with Bernoulli's Principle¹.

Applicant's condensate trap includes a chamber, the walls of which define a void having a longitudinal axis that extends through the void and is common with the chamber, i.e. a vortex line. Fluid is admitted into the chamber in a tangential direction with respect to the longitudinal axis so as to promote a rotational flow of the fluid about the longitudinal axis. As a result of this structure, a low pressure region within the fluid is generated which is centered on the longitudinal axis.

In stark contrast, Moore suggests the formation of a passage 29 that is defined between the outer surface of a baffle member 27 and an inner surface of a housing 10, and extends along the length of these structures in correspondence with a spiral fin 30. In other words, Moore's fluid is forced to travel along a spiral path that is defined for it by fin 30. However, Moore's spiraling fluid cannot be said to form a vortex since its spiral motion is relative the longitudinal axis of Moore's baffle and housing structure and therefore lacks a spinning flow around a vortex line at which the fluid pressure is lowest and the fluid speed is greatest. Moreover, Moore's fluid pressure within his spiral passage is not in accordance with Bernoulli's Principle, but rather incorporates a quite different pressure profile. Claim 1 has been amended, and new claim 26 has been added so as to make theses distinctions apparent.

¹ An increase in the speed of a fluid occurs simultaneously with a decrease in pressure.

With regard to claim 24, and the fact that the condensate flashes to steam within the low pressure region, this process merely reflects an inherent thermodynamic property of steam. Of course, condensate will flash to steam if its pressure is reduced, but the skilled person would see this as extremely unlikely to happen in the device of Moore, since forcing the condensate into a spiral shaped passageway will, in fact, increase its pressure owing to centrifugal forces. Since the body of condensate flows around a spiral path centered on the longitudinal axis of the baffle and housing, and since there is no condensate at the longitudinal axis, there will be no low pressure region at which the condensate can flash to steam.

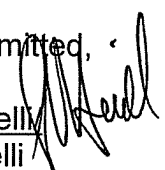
In view of the foregoing, Applicant respectfully submits that claims 1-15, 20-21, 23-24, and 26 are in condition for allowance, as are currently withdrawn claims 16-19. Favorable reconsideration is therefore respectfully requested.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

If a telephone conference would be of assistance in advancing prosecution of the above-identified application, Applicant's undersigned Attorney invites the Examiner to telephone him at **215-979-1255**.

Date: September 26, 2008

Respectfully Submitted,


/Samuel W. Apicelli
Samuel W. Apicelli
Registration No. 36,427
Customer No. 08933
DUANE MORRIS LLP
30 S. 17th Street
Philadelphia, PA 19103-4196
Tel: 215-979-1255
swapicelli@duanemorris.com